

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Previously presented): The vacuum processing system according to claim 10, further comprising:

an external arm disposed outside of the vacuum chamber and being capable of holding a process object and capable of carrying a held process object into the first load-lock mechanism and capable of carrying a held process object into the second load-lock mechanism;

a first robot arm disposed outside of the vacuum chamber and being capable of transferring the process object between a stock site outside of the vacuum chamber and the first load-lock mechanism and between the stock site and the external arm; and

a second robot arm disposed outside of the vacuum chamber and being capable of transferring the process object between the stock site and the second load-lock mechanism and between the stock site and the external arm.

2. (Previously presented): The vacuum processing system according to claim 1, further comprising:

a buffer disposed outside of the vacuum chamber for temporarily holding the process object,

wherein the first robot arm and the second robot arm are capable of carrying the process object to the buffer and are capable of carrying the process object from the buffer.

3. (Previously presented): The vacuum processing system according to claim 1,

wherein the controller controls the first robot arm and the external arm in such a manner that the first robot arm carries a first process object from the stock site to the external arm, thereafter carries a second process object held by the first load-lock mechanism to the stock site, and during a period while the first robot arm carries the second process object, the external arm carries the first process object into the first load-lock mechanism.

4. (Previously presented): The vacuum processing system according to claim 3, wherein the controller controls the first robot arm, the second robot arm and the external arm in such a manner that the second robot arm carries a third process object from the second load-lock mechanism to the buffer, in parallel to this operation the first robot arm carries a fourth process object from the stock site to the external arm, thereafter the first robot arm carries the third process object from the buffer to the stock site, and in parallel to this operation the external arm carries the fourth process object into the second load-lock mechanism.

5. Cancelled.

6. Cancelled.

7. (Previously presented): The vacuum processing system according to claim 1, further comprising:

an aligner disposed outside of the vacuum chamber for receiving a process object from the first robot arm, adjusting a posture of the process object, and passing the process object whose posture was adjusted to the external arm,

wherein the external arm receives the process object from the first robot arm via the aligner.

8. (Currently amended): A vacuum processing system comprising:

a vacuum chamber for defining an inner space capable of being evacuated, the vacuum chamber having an opening on a bottom wall thereof;

a first load-lock mechanism comprising a lift table, an atmospheric side partition lid, and a vacuum side partition lid, wherein the lift table is capable of holding thereon and being raised or lowered through the opening to transfer ~~transferring~~ a process object into and out of the vacuum chamber in a state that the vacuum chamber is maintained vacuum, the opening is closed from an outside of the vacuum chamber by the atmospheric side partition lid when the lift table is disposed in the vacuum chamber, and the opening is closed from an inner side of the vacuum chamber by the vacuum side partition lid when the lift table is out of the vacuum chamber;

a holding mechanism disposed in the vacuum chamber, the holding mechanism being capable of holding a process object and moving the process object from a process position where the process object is processed to a load position and from the load position to the process position;

an internal arm capable of exchanging a process object at the load position with another process object held by the first load-lock mechanism, while the holding mechanism is capable of holding a process object at the load position; and

a controller for controlling the internal arm to exchange a process object held on the lift table of the first load-lock mechanism with another process object held by the holding mechanism at the load position,

wherein the internal arm includes a first arm and a second arm both capable of swinging independently, the first and second arms are supported at different positions in a swing axial direction, the first arm is capable of swinging in a first swing direction and is capable of moving a process object at the load position to the lift table of the first load-lock mechanism, and at the same time the second arm is capable of swinging in a second swing direction reverse to the first swing direction and is capable of moving another process object held on the lift table of the first load-lock mechanism to the load position.

9. Cancelled

10. (Previously presented): The vacuum processing system according to claim 8, further comprising a second load-lock mechanism comprising another lift table capable of holding thereon and transferring a process object into and out of the vacuum chamber in a state that the vacuum of the vacuum chamber is maintained, wherein the lift table of the first load-lock mechanism and the lift table of the second load-lock mechanism are placed at different positions on a plane perpendicular to the swing axial direction, a swing shaft of the internal arm is disposed at an equi-distance from the lift table of the first load-lock mechanism and the lift table of the second load-lock mechanism.